

25. The method of Claim 24, wherein the polyethylenimine derivative targets the mannose receptor found on the surface of antigen presenting cells.

26. The method of Claim 25, wherein the derivative is mannosylated polyethylenimine.

27. The method of Claim 26, wherein the mannosylated polyethylenimine is derived from a linear PEI 22 kDa.

28. The method of Claim 23, wherein the complex is electrostatically neutral. (page 25, lines 9-32).

29. The method of Claim 23, wherein the complex comprises about 3-10:1 molar equivalent polyethylenimine or polyethylenimine derivative amine per DNA phosphate ratio. (page 25, lines 26-27, page 24).

30. The method of Claim 23, wherein the complex comprises about 5:1 molar equivalent polyethylenimine or polyethylenimine derivative amine per DNA phosphate ratio. (page 25, lines 26-27, page 24).

31. The method of Claim 23, wherein the gene delivery complex is formulated in a glucose solution.

32. The method of Claim 31, wherein the glucose solution is about 5-10% glucose.

33. The method of Claim 32, wherein the glucose solution is about 8% glucose.

34. The method of Claim 23, further comprising the step of activating the antigen presenting cells of the skin or mucosa surfaces of the animal.

35. The method of Claim 34, wherein the activating step is performed by receptor stimulation, toxin activation, or tissue or cell injury.

36. The method of Claim 23, wherein the immunogenic protein is derived from a reverse-transcriptase dependent virus.